

NANOCRYL® A 223

NANOCRYL® A 223 is a versatile dispersion of colloidal silica in a trifunctional polyether acrylate for the use in adhesive applications. The silica phase consists of surface-modified, synthetic SiO₂-spheres of very small size (Ø 20 nm) and narrow particle size distribution.

Despite the high SiO₂-content of 50 wt%, NANOCRYL® A 223 is highly transparent, low viscous and shows no sedimentation due to the agglomerate-free dispersion of the nanoparticles in the acrylate.

Technical data (no specification)

Property	Units	Typical Values
Base acrylate		ethoxylated (3) trimethylolpropane triacrylate
Appearance		clear, slightly yellow liquid
SiO ₂ -content	[wt%]	~ 50
Density @ 20 °C	[g/ml]	~ 1.3
Viscosity @ 25 °C	[mPas]	~ 1 000
Shelf life	[months]	6*

*if stored in the original unopened container

Processing Instructions

NANOCRYL® A 223 can be used as any common UV-curable acrylate. However, the compatibility between NANOCRYL® A 223 and all other components should be tested separately before starting formulation development.

The colloidal silica in NANOCRYL® products tends to agglomerate if the stabilisation is affected by inappropriate formulation components like hydrocarbon solvents (e. g. xylene) or certain performance additives (e. g. several silicones or amines).

Registration status

The ingredients of NANOCRYL® A 223 are listed in the following chemical inventories:

EINECS/ELINCS, TSCA, NDSL, ENCS, TCCL, PICCS, IECSC, TCSI

Further information is available on request.

Handling and Storage

NANOCRYL® A 223 should be handled in accordance with good industrial practice. Detailed information is provided in the Material Safety Data Sheet.

NANOCRYL® A 223 is hygroscopic. Therefore keep container tightly closed when not in use! The product may polymerise under improper storage conditions. Store below 30 °C.

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Evonik Nutrition & Care GmbH
Charlottenburger Straße 9
21502 Geesthacht, Germany
Phone +49 4152 8092-0
Fax. +49 4152 79156
nano-and-silicone-technology@evonik.com
www.evonik.com/nano-and-silicone-technology

